however, in one implementation a selected frame does not change to another frame by directional navigation commands; instead frames are only selectable from the thumbnail view.

[0013] Other advantages will become apparent from the following detailed description when taken in conjunction with the drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] **FIG. 1** is a block diagram generally representing a computer system into which the present invention may be incorporated;

[0015] **FIG. 2** is a representation of a mobile telephone constructed in accordance with an aspect of the present invention, including a mechanism for displaying content in a panelized manner;

[0016] **FIG. 3** is a representation of content panelized into regions in accordance with an aspect of the present invention;

[0017] **FIG. 4** is a **FIG. 3** is a representation of a tooltip that can appear when navigating over a panelized region of content, in accordance with an aspect of the present invention;

[0018] **FIG. 5** is a representation of how panelized regions may be navigated via four-way navigation commands, in accordance with an aspect of the present invention;

[0019] **FIG. 6** is a representation of content logically separated into a zooming grid, in accordance with an aspect of the present invention;

[0020] **FIG. 7** is a representation of various options for how panelized regions may be navigated via a Back command, in accordance with an aspect of the present invention; and

[0021] **FIG. 8** is a block diagram representing an example architecture in which the present invention has been incorporated.

DETAILED DESCRIPTION

[0022] Exemplary Operating Environment

[0023] **FIG. 1** shows functional components of one such handheld computing device **120**, including a processor **122**, a memory **124**, a display **126**, and a keyboard **128** (which may be a physical or virtual keyboard, or may represent both). The memory **124** generally includes both volatile memory (e.g., RAM) and non-volatile memory (e.g., ROM, PCMCIA cards, and so forth). An operating system **130** is resident in the memory **124** and executes on the processor **122**, such as the Windows® operating system from Microsoft Corporation, or another operating system.

[0024] One or more application programs **132** are loaded into memory **124** and run on the operating system **130**. Examples of applications include email programs, scheduling programs, PIM (personal information management) programs, word processing programs, spreadsheet programs, Internet browser programs, and so forth. The handheld personal computer **120** may also include a notification manager **134** loaded in the memory **124**, which executes on the processor **122**. The notification manager **134** handles notification requests, e.g., from the application programs **132**. Also, as described below, the handheld personal computer **120** includes networking software **136** (e.g., hardware drivers and the like) and network components **138** (e.g., a radio and antenna) suitable for connecting the handheld personal computer **120** to a network, which may include making a telephone call.

[0025] The handheld personal computer **120** has a power supply **140**, which is implemented as one or more batteries. The power supply **140** may further include an external power source that overrides or recharges the built-in batteries, such as an AC adapter or a powered docking cradle.

[0026] The exemplary handheld personal computer **120** represented in **FIG. 1** is shown with three types of external notification mechanisms: one or more light emitting diodes (LEDs) **142** and an audio generator **144**. These devices may be directly coupled to the power supply **140** so that when activated, they remain on for a duration dictated by a notification mechanism even though the handheld personal computer processor **122** and other components might shut down to conserve battery power. The LED **142** preferably remains on indefinitely until the user takes action. Note that contemporary versions of the audio generator **144** use too much power for today's handheld personal computer batteries, and so it is configured to turn off when the rest of the system does or at some finite duration after activation.

[0027] Improved Content Viewing and Navigation

[0028] The present invention is generally directed towards viewing pages of content, particularly on small display screens such as present on mobile computing devices and/or mobile telephones. As will be understood, however, the present invention is not limited to any type of computing device, and may, for example, be used with a relatively large display, such as to assist visually-impaired users, assist web page designers in arranging content to be viewed on small devices, and so forth. Moreover, the present invention is not limited to viewing only web content, but can also be applied to any structured document, including word processing documents, spreadsheets and so forth. As used herein, the term "content" refers to any document having some structure that can be analyzed and separated into regions.

[0029] Turning to **FIG. 2**, there is shown a mobile telephone and computing device **200** having a display **204**. As described below, the device **200** includes browser software and is thus capable of presenting content including web pages and the like to users. Various buttons/keys are provided that allow a user to control the operation of the device **200**, including a four-way navigation button **208** that detects left, right, up and down movements, and also detects a user's tapping action. Other buttons include a "Home" button **212** and a "Back" button **216**. As can be readily appreciated, via the buttons the user can navigate among content such as provided in web pages.

[0030] In accordance with an aspect of the present invention and as generally represented in **FIG. 2**, in one implementation, when a user requests a page, the entire page is presented in a thumbnail view. Ordinarily, the thumbnail view is scaled such that screen shows the entire width of the page. One way to scale pages is described in U.S. patent application Ser. No. 10/404,209 entitled "System and Method for Scaling Images to Fit a Screen on a Mobile